EXHIBIT M

MEMORANDUM

To: City of Crest Hill

From: Alexa Falbo
Kimley-Horn and Associates, Inc.

Date: October 31st, 2025
Revised On: December 30, 2025

Re: ***Proposed Extra Space Development***
1812 N Larkin Ave
Crest Hill, IL 60403

Introduction

Kimley-Horn and Associates, Inc., serves as the engineering consultant for Extra Space Storage. They are proposing to expand the existing storage facility in the southeast vacant lot of 1812 N Larkin Ave. The total combined property area is 5.83 acres, and the total project disturbance area is 1.77 acres. The total drainage area for the site, including offsite tributary area, is 1.83 acres. The sitework includes construction of a new 26,340 SF self-storage building with associated utilities, pavement installation and landscape improvements.

Existing Conditions

The current site is a vacant rural lot. Per the Existing Drainage Plan **(Exhibit 1)**, the existing impervious area within the total drainage area is 0.14 acres while the remaining 1.69 acres is pervious. The site was previously designed for a separate development that was never fully constructed. As part of this previous design, stormwater detention was provided in the southwest area of the property area, contained by a retaining wall. The existing detention system has 0.402 AC-FT of volume and has the capacity to convey the 2 yr, 24-hour storm event, while the 100-year storm event is conveyed through a break in the existing retaining wall. The existing detention pond has an outlet control structure with a 2.25” orifice that discharges runoff northwest to N Larkin Ave. See **Table 1** below for pre-development runoff rates.

Proposed Conditions

The proposed runoff will be directed to storm sewer via sheet flow to the parking lot inlets, leading to the same existing outfall structure, where it ultimately discharges to both the existing modified detention pond as well as the proposed detention pond. The existing detention pond and the existing outlet control structure is to be replaced in proposed

conditions. There is a proposed outlet control structure with a 2" orifice to restrict flows and discharge runoff northwest to N Larkin Ave. Per the Proposed Drainage Plan **(Exhibit 2)**, the total impervious area within the drainage area is 1.18 acres. The total pervious area within the drainage area is 0.65 acres.

The existing retaining walls will be fully removed and replaced with a proposed detention pond to meet the post-development requirements. The proposed detention pond will provide a total volume of 1.142 Ac-Ft and will convey both the 2-yr and 100-yr, 24-hour storm event, see **Exhibit 4** for details.

Per City of Crest Hill Stormwater Drainage and Detention, the peak discharge from events less than or equal to the two-year event shall not be greater than 0.04 cfs per acre. The peak 100-year discharge shall not be greater than 0.15 cfs per acre. Per the HydroCAD calculations provided, see **Exhibit 3** and **Exhibit 4**, the site has a peak runoff of 0.17 cfs for the 2-year, 24-hour storm event and 0.22 cfs for the 100-year, 24-hour storm event. The post-development release rates can also be found in **Table 1** below.

Table 1: Peak Runoffs

	Tributary Area (ac)	2-Yr Allowed Flow (cfs)	2-Yr Flow (cfs)	100-yr Allowed Flow (cfs)	100-Yr Flow (cfs)
Pre-Development	1.83	0.07	0.14	0.27	6.30
Post-Development	1.83	0.07	0.17	0.27	0.22

The proposed stormwater management on site will meet the requirements for the 100-year release rate. The site cannot meet the 2-year release rate, due to the limited disturbed area and maintenance concerns of a smaller orifice.

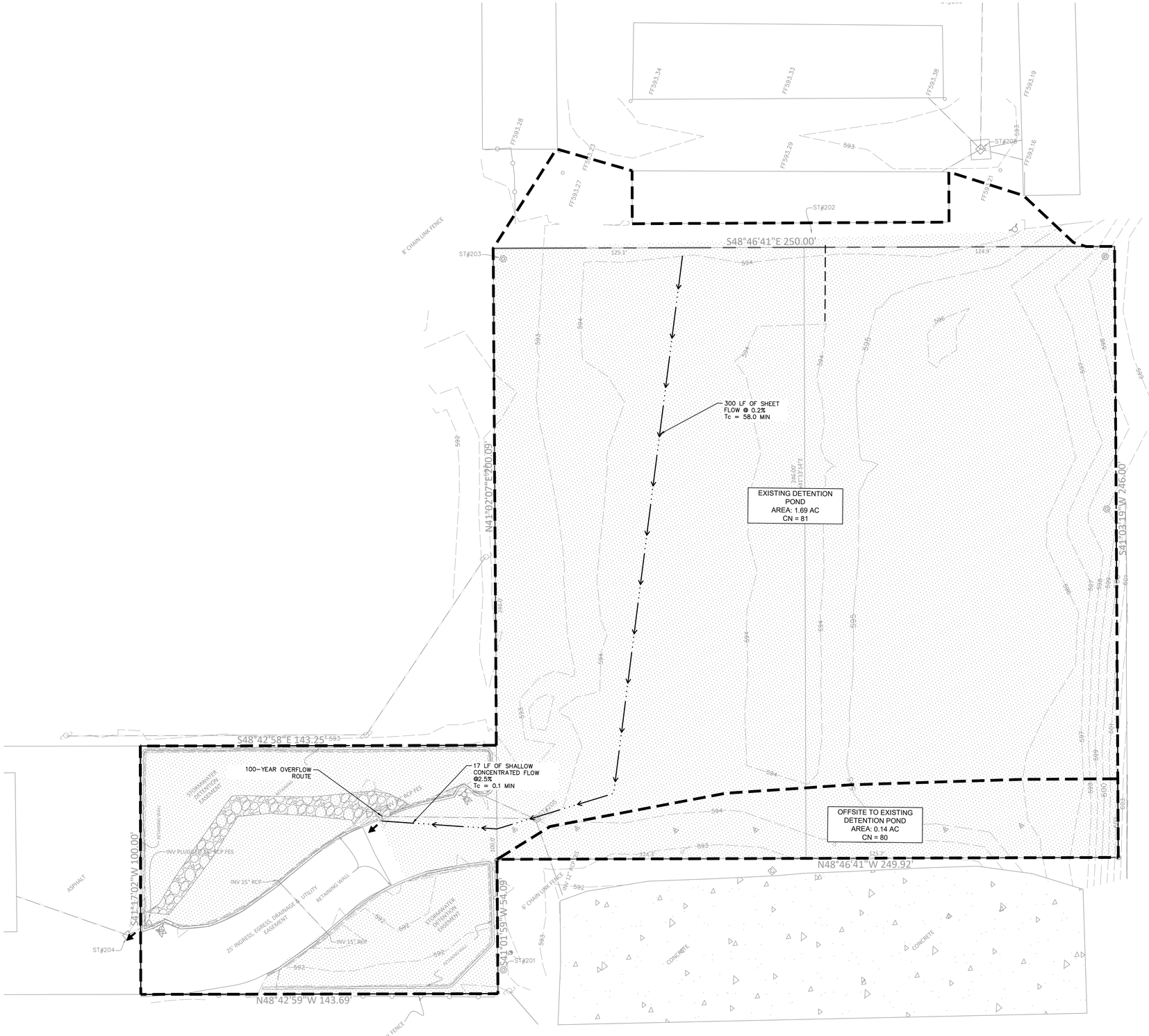
Attachments

- Exhibit 1: Existing Drainage Plan
- Exhibit 2: Proposed Drainage Plan
- Exhibit 3: Pre-Development HydroCAD Calculations
- Exhibit 4: Post-Development HydroCAD Calculations

GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

Call Before You Dig
JULIE
1-800-892-0123



DRAINAGE LEGEND

	IMPERVIOUS AREA AREA = 1.69 AC
	PERVIOUS AREA AREA = 0.14 AC
915	EXISTING CONTOUR
915	PROPOSED CONTOUR
	DRAINAGE BASIN BOUNDARY
X.XX%	SLOPE AND FLOW DIRECTION
	OVERLAND FLOW ROUTE
	FLOW PATH
	EXISTING STORM SEWER
	EXISTING STORM STRUCTURE

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
111 WEST JACKSON BOULEVARD, STE 1320
CHICAGO, IL 60604
PHONE: 312-862-9445
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JTW
DRAWN BY: JEA
CHECKED BY: ANF

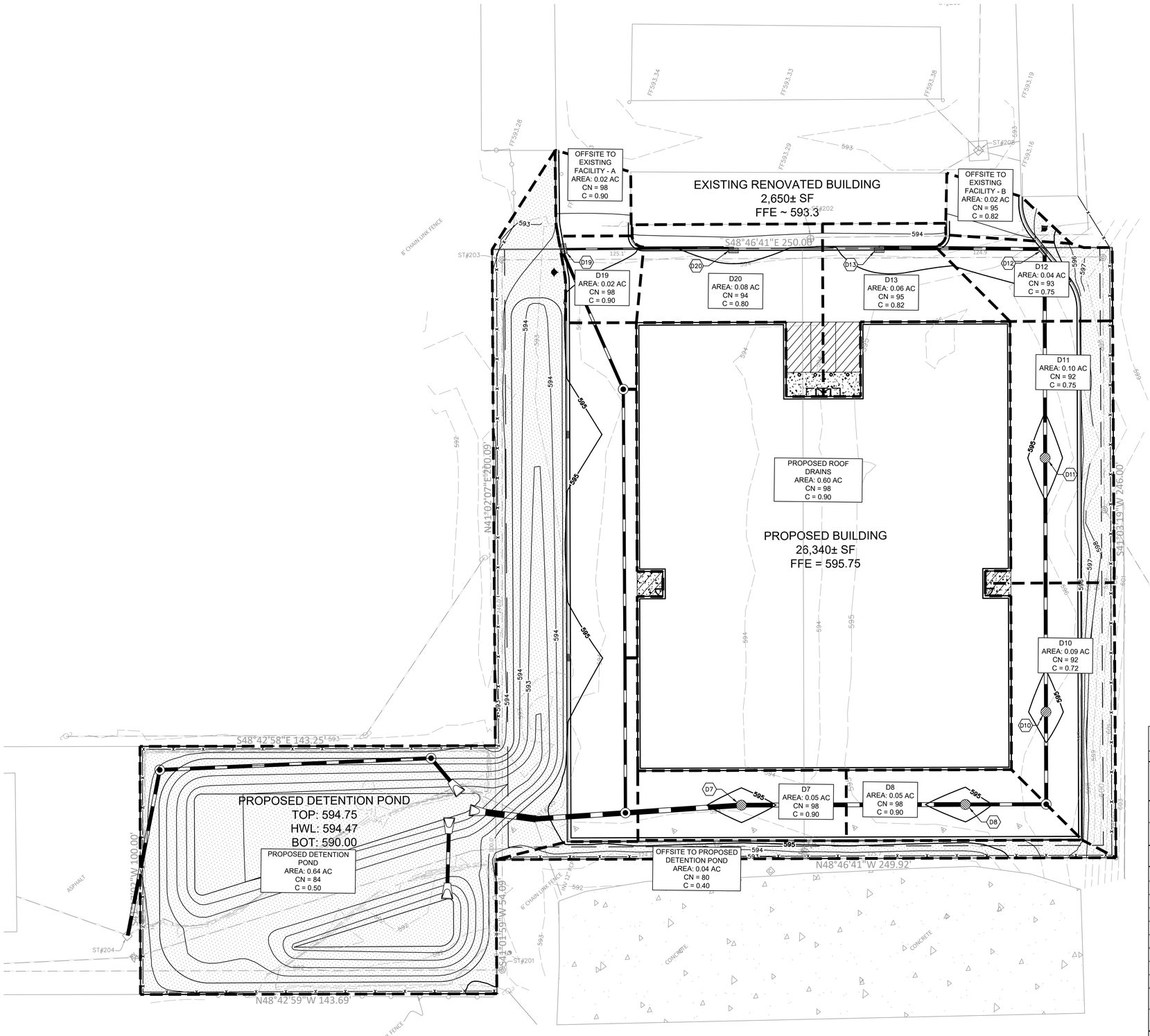
NOT FOR CONSTRUCTION

ExtraSpace Storage

EXISTING DRAINAGE PLAN

EXTRA SPACE STORAGE
1812 N LARKIN AVE
CREST HILL, IL 60403

ORIGINAL ISSUE: 10/30/2025
KHA PROJECT NO. 268783002
SHEET NUMBER
EXH. 1



GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

Call Before You Dig
JULIE
1-800-892-0123

DRAINAGE LEGEND

- IMPERVIOUS AREA — AREA = 1.18 AC
- PERVIOUS AREA — AREA = 0.65 AC
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DRAINAGE BASIN BOUNDARY
- SLOPE AND FLOW DIRECTION
- OVERLAND FLOW ROUTE
- FLOW PATH
- EXISTING STORM SEWER
- EXISTING STORM STRUCTURE
- PROPOSED STORM SEWER
- PROPOSED STORM STRUCTURE

PROPOSED DRAINAGE AREAS

PROPOSED DRAINAGE AREA CALCULATIONS

DRAINAGE AREA	TRIBUTARY AREA (ac)	IMPERVIOUS AREA (ac)	PERVIOUS AREA (ac)	CN	C	TC (min)	10-YR, 15 MIN DURATION INTENSITY (IN/HR)	10-Yr Flow (cfs)
OFFSITE TO EXISTING FACILITY - A	0.02	0.02	0.00	98	0.90	15.00	4.36	0.08
OFFSITE TO EXISTING FACILITY - B	0.02	0.02	0.00	95	0.82	15.00	4.36	0.07
TOTAL OFFSITE TO EXISTING FACILITY	**0.04**	**0.04**	**0.00**	**95**	0.86	-	**4.36**	**0.15**
D7	0.05	0.05	0.00	98	0.90	15.00	4.36	0.22
D8	0.05	0.05	0.00	98	0.90	15.00	4.36	0.21
D10	0.09	0.06	0.03	92	0.72	15.00	4.36	0.29
D11	0.10	0.07	0.03	92	0.75	15.00	4.36	0.33
D12	0.04	0.03	0.01	93	0.75	15.00	4.36	0.14
D13	0.06	0.05	0.01	95	0.82	15.00	4.36	0.22
PROPOSED ROOF DRAINS	0.60	0.60	0.00	98	0.90	15.00	4.36	2.35
D19	0.02	0.02	0.00	98	0.90	15.00	4.36	0.10
D20	0.08	0.06	0.02	94	0.80	15.00	4.36	0.27
PROPOSED DETENTION POND	0.64	0.14	0.50	84	0.51	15.00	4.36	1.42
OFFSITE TO EXISTING FACILITY - C	0.04	0.00	0.04	80	0.40	15.00	4.36	0.07
TOTAL	**1.83**	**1.18**	**0.64**	**92**	**0.72**	-	-	-

NOTES

RUNOFF COEFFICIENTS

	CN	C
PERVIOUS	80	0.40
IMPERVIOUS	98	0.90

No.	REVISIONS	DATE	BY

Kimley»Horn

111 WEST JACKSON BOULEVARD, STE 1320
CHICAGO, IL 60604
PHONE: 312-862-9445
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JTW
DRAWN BY: JEA
CHECKED BY: ANF

NOT FOR CONSTRUCTION

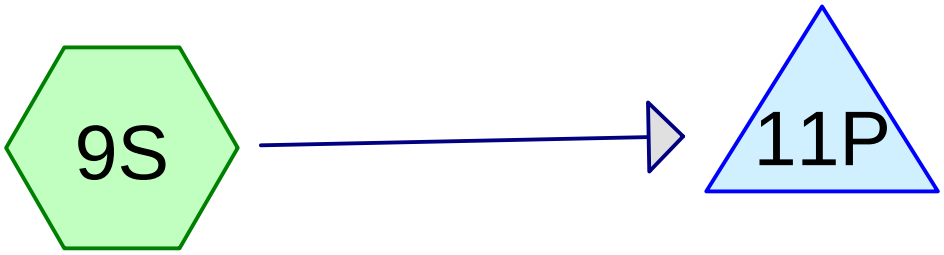
ExtraSpace Storage

PROPOSED DRAINAGE PLAN

EXTRA SPACE STORAGE
1812 N LARKIN AVE
CREST HILL, IL 60403

ORIGINAL ISSUE: 10/30/2025
KHA PROJECT NO. 268783002
SHEET NUMBER
EXH. 2

EXHIBIT 3



Existing Area

Existing Pond
(COMBINED)

PRE-DEVELOPMENT

Subcat Reach Pond Link

Routing Diagram for 2025-1031 Post Development
Prepared by Kimley-Horn & Associates, Printed 10/31/2025

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2YR 24HR	Type II 24-hr		Default	24.00	1	3.34	2
2	100YR 24HR	Type II 24-hr		Default	24.00	1	8.57	2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.690	80	>75% Grass cover, Good, HSG D (9S)
0.140	98	Paved parking, HSG D (9S)

Summary for Subcatchment 9S: Existing Area

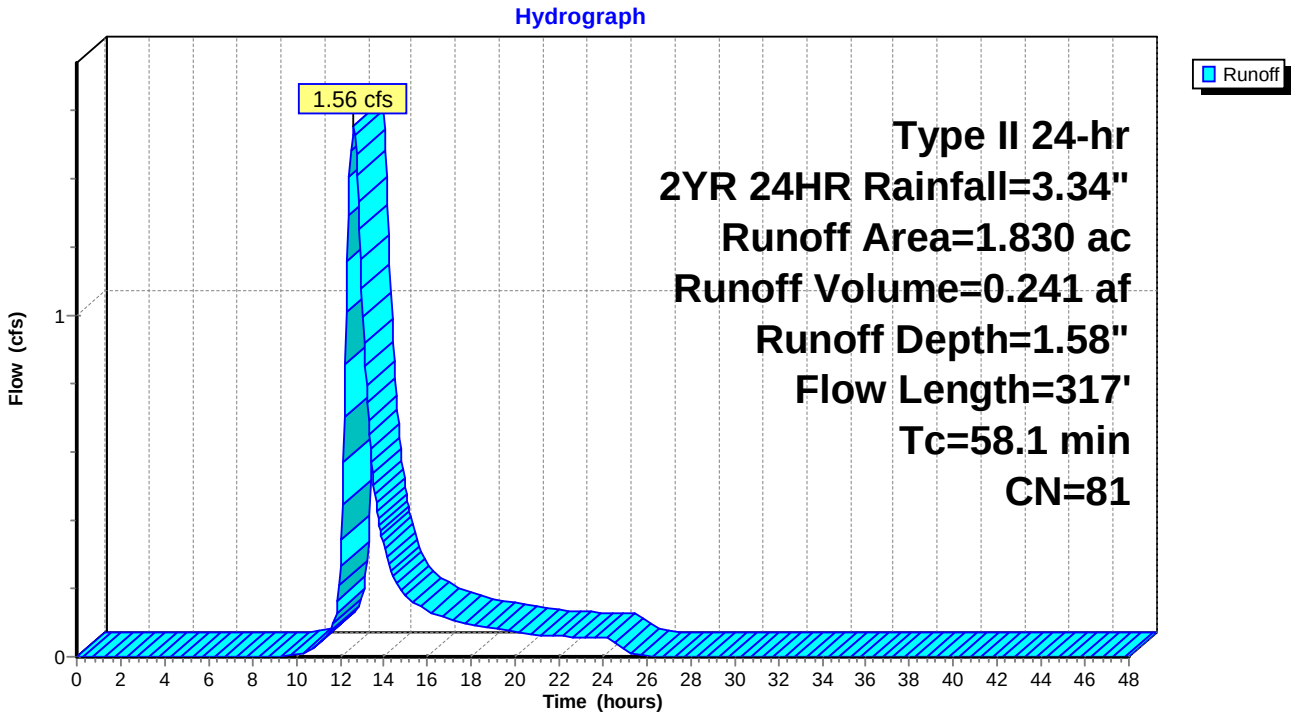
Runoff = 1.56 cfs @ 12.61 hrs, Volume= 0.241 af, Depth= 1.58"
Routed to Pond 11P : Existing Pond (COMBINED)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR 24HR Rainfall=3.34"

Area (ac)	CN	Description
1.690	80	>75% Grass cover, Good, HSG D
0.140	98	Paved parking, HSG D
1.830	81	Weighted Average
1.690		92.35% Pervious Area
0.140		7.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
58.0	300	0.0020	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.34"
0.1	17	0.0250	3.21		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
58.1	317	Total			

Subcatchment 9S: Existing Area



Summary for Pond 11P: Existing Pond (COMBINED)

Inflow Area = 1.830 ac, 7.65% Impervious, Inflow Depth = 1.58" for 2YR 24HR event
Inflow = 1.56 cfs @ 12.61 hrs, Volume= 0.241 af
Outflow = 0.14 cfs @ 15.84 hrs, Volume= 0.239 af, Atten= 91%, Lag= 193.6 min
Primary = 0.14 cfs @ 15.84 hrs, Volume= 0.239 af

Routing by Sim-Route method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 591.63' @ 15.84 hrs Surf.Area= 0.151 ac Storage= 0.141 af

Plug-Flow detention time= 522.7 min calculated for 0.239 af (99% of inflow)
Center-of-Mass det. time= 518.9 min (1,401.4 - 882.5)

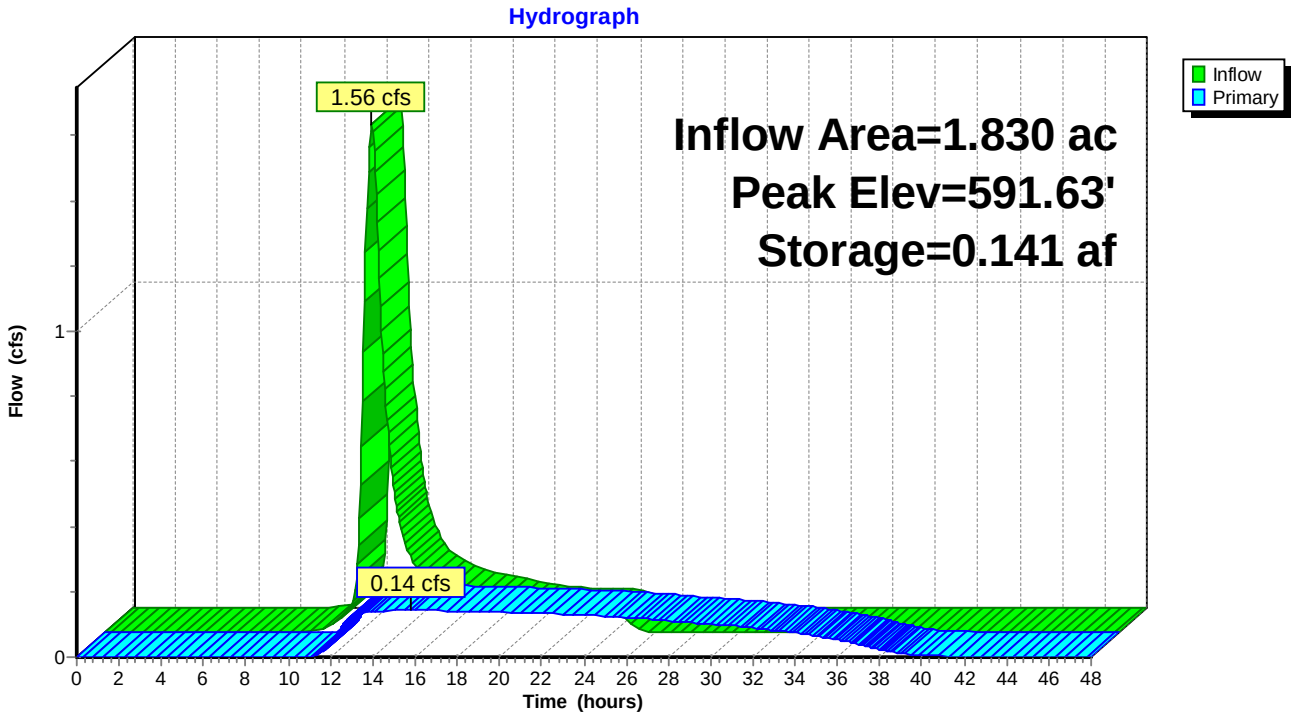
Volume	Invert	Avail.Storage	Storage Description
#1	590.10'	0.527 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
590.10	0.002	0.000	0.000
590.20	0.006	0.000	0.000
590.30	0.018	0.001	0.002
590.40	0.035	0.003	0.004
590.50	0.050	0.004	0.008
590.60	0.059	0.005	0.014
590.80	0.094	0.015	0.029
591.00	0.130	0.022	0.052
591.50	0.147	0.069	0.121
592.00	0.160	0.077	0.198
592.50	0.162	0.080	0.278
593.00	0.162	0.081	0.359
593.10	0.165	0.016	0.375
593.20	0.169	0.017	0.392
594.00	0.169	0.135	0.527

Device	Routing	Invert	Outlet Devices
#1	Primary	590.28'	**2.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	593.00'	**10.0' long + 10.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#3	Primary	593.20'	**50.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.14 cfs @ 15.84 hrs HW=591.63' (Free Discharge)
- **1=Orifice/Grate** (Orifice Controls 0.14 cfs @ 5.41 fps)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)
- **3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 11P: Existing Pond (COMBINED)



Summary for Subcatchment 9S: Existing Area

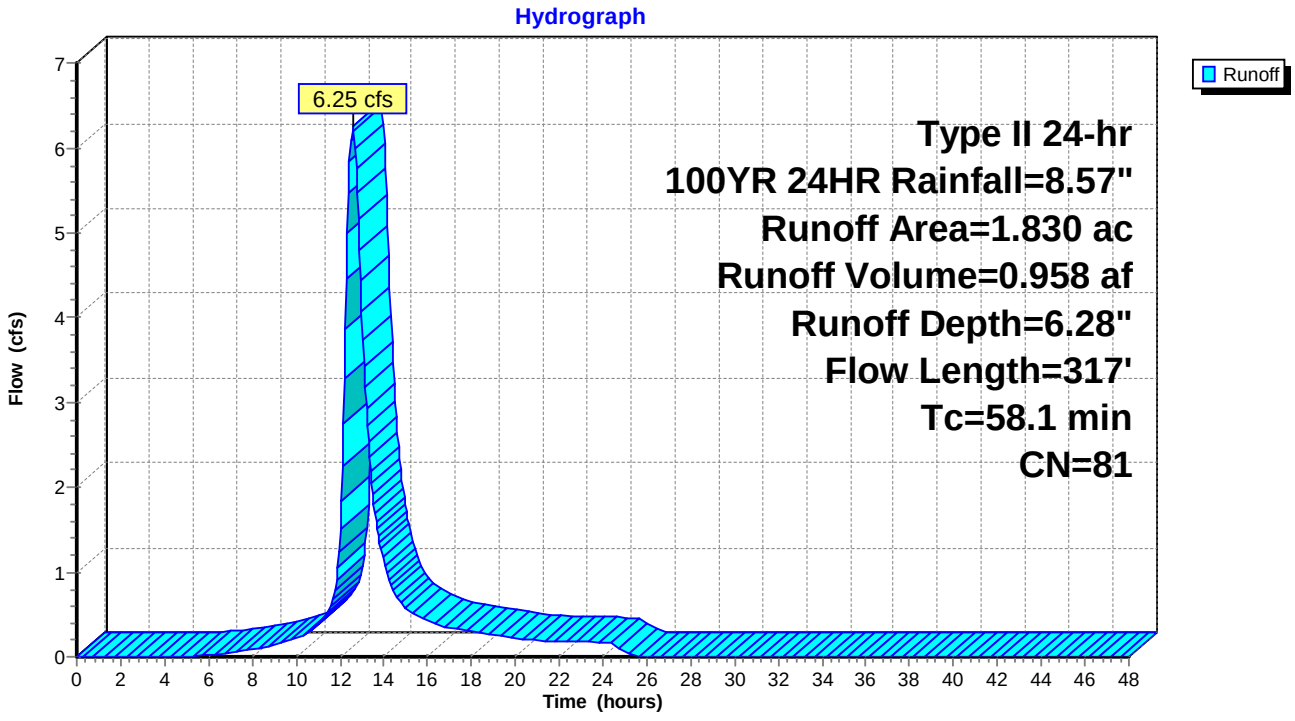
Runoff = 6.25 cfs @ 12.59 hrs, Volume= 0.958 af, Depth= 6.28"
Routed to Pond 11P : Existing Pond (COMBINED)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100YR 24HR Rainfall=8.57"

Area (ac)	CN	Description
1.690	80	>75% Grass cover, Good, HSG D
0.140	98	Paved parking, HSG D
1.830	81	Weighted Average
1.690		92.35% Pervious Area
0.140		7.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
58.0	300	0.0020	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.34"
0.1	17	0.0250	3.21		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
58.1	317	Total			

Subcatchment 9S: Existing Area



Summary for Pond 11P: Existing Pond (COMBINED)

Inflow Area = 1.830 ac, 7.65% Impervious, Inflow Depth = 6.28" for 100YR 24HR event
Inflow = 6.25 cfs @ 12.59 hrs, Volume= 0.958 af
Outflow = 6.30 cfs @ 12.90 hrs, Volume= 0.903 af, Atten= 0%, Lag= 19.1 min
Primary = 6.30 cfs @ 12.90 hrs, Volume= 0.903 af

Routing by Sim-Route method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 593.26' @ 12.91 hrs Surf.Area= 0.169 ac Storage= 0.402 af

Plug-Flow detention time= 508.4 min calculated for 0.903 af (94% of inflow)
Center-of-Mass det. time= 475.9 min (1,319.2 - 843.2)

Volume	Invert	Avail.Storage	Storage Description
#1	590.10'	0.527 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
590.10	0.002	0.000	0.000
590.20	0.006	0.000	0.000
590.30	0.018	0.001	0.002
590.40	0.035	0.003	0.004
590.50	0.050	0.004	0.008
590.60	0.059	0.005	0.014
590.80	0.094	0.015	0.029
591.00	0.130	0.022	0.052
591.50	0.147	0.069	0.121
592.00	0.160	0.077	0.198
592.50	0.162	0.080	0.278
593.00	0.162	0.081	0.359
593.10	0.165	0.016	0.375
593.20	0.169	0.017	0.392
594.00	0.169	0.135	0.527

Device	Routing	Invert	Outlet Devices
#1	Primary	590.28'	**2.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	593.00'	**10.0' long + 10.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#3	Primary	593.20'	**50.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=6.01 cfs @ 12.90 hrs HW=593.25' (Free Discharge)
- **1=Orifice/Grate** (Orifice Controls 0.22 cfs @ 8.18 fps)
- **2=Broad-Crested Rectangular Weir** (Weir Controls 3.69 cfs @ 1.15 fps)
- **3=Sharp-Crested Rectangular Weir** (Weir Controls 2.10 cfs @ 0.77 fps)

Pond 11P: Existing Pond (COMBINED)

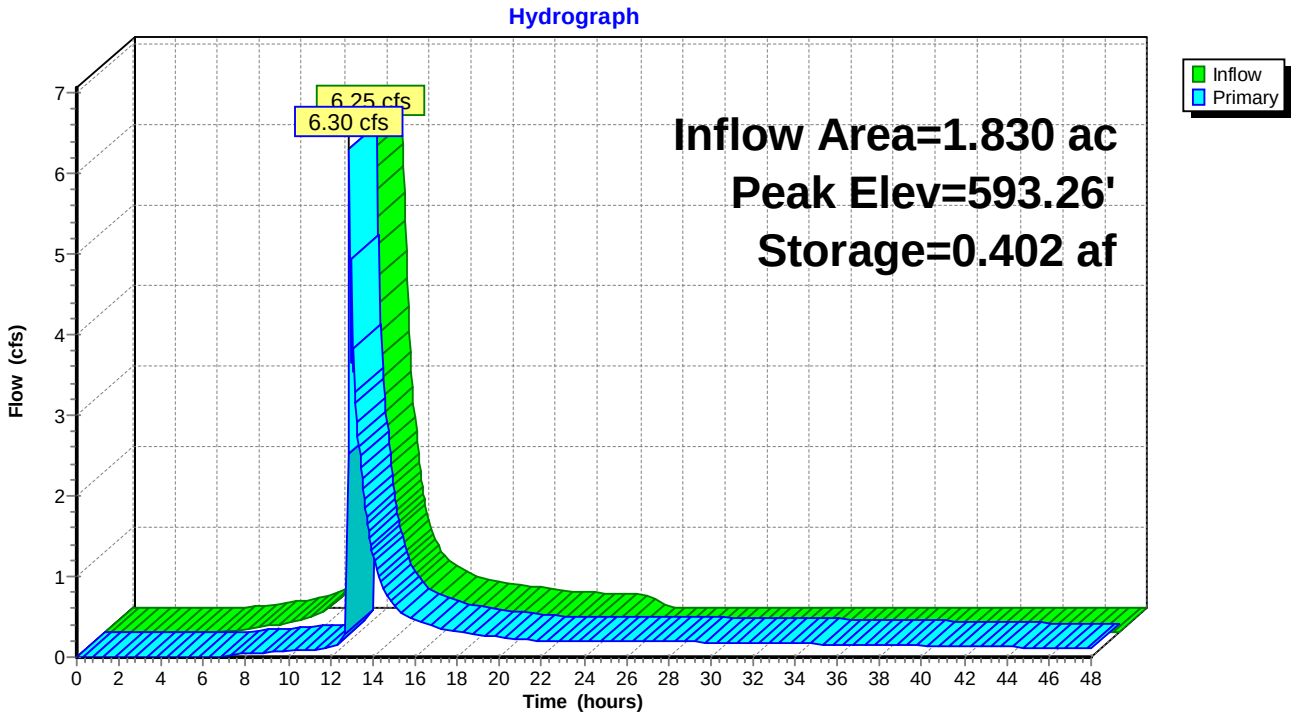
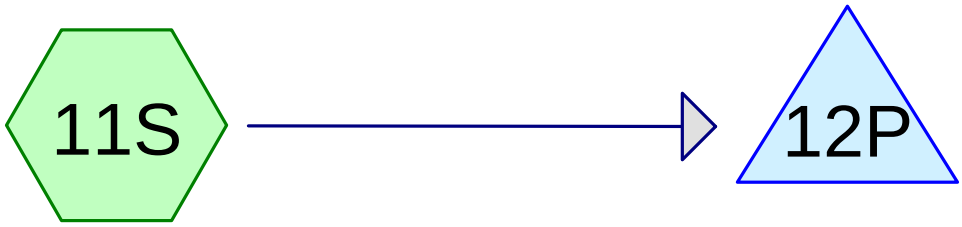


EXHIBIT 4



Proposed Detention Pond

Proposed Pond

POST-DEVELOPMENT

Subcat Reach Pond Link

Routing Diagram for 2025-1222 Post Development
Prepared by Kimley-Horn & Associates, Printed 12/30/2025

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2YR 24HR	Type II 24-hr		Default	24.00	1	3.34	2
2	100YR 24HR	Type II 24-hr		Default	24.00	1	8.57	2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.650	80	>75% Grass cover, Good, HSG D (11S)
1.180	98	Paved parking, HSG D (11S)

Summary for Subcatchment 11S: Proposed Detention Pond

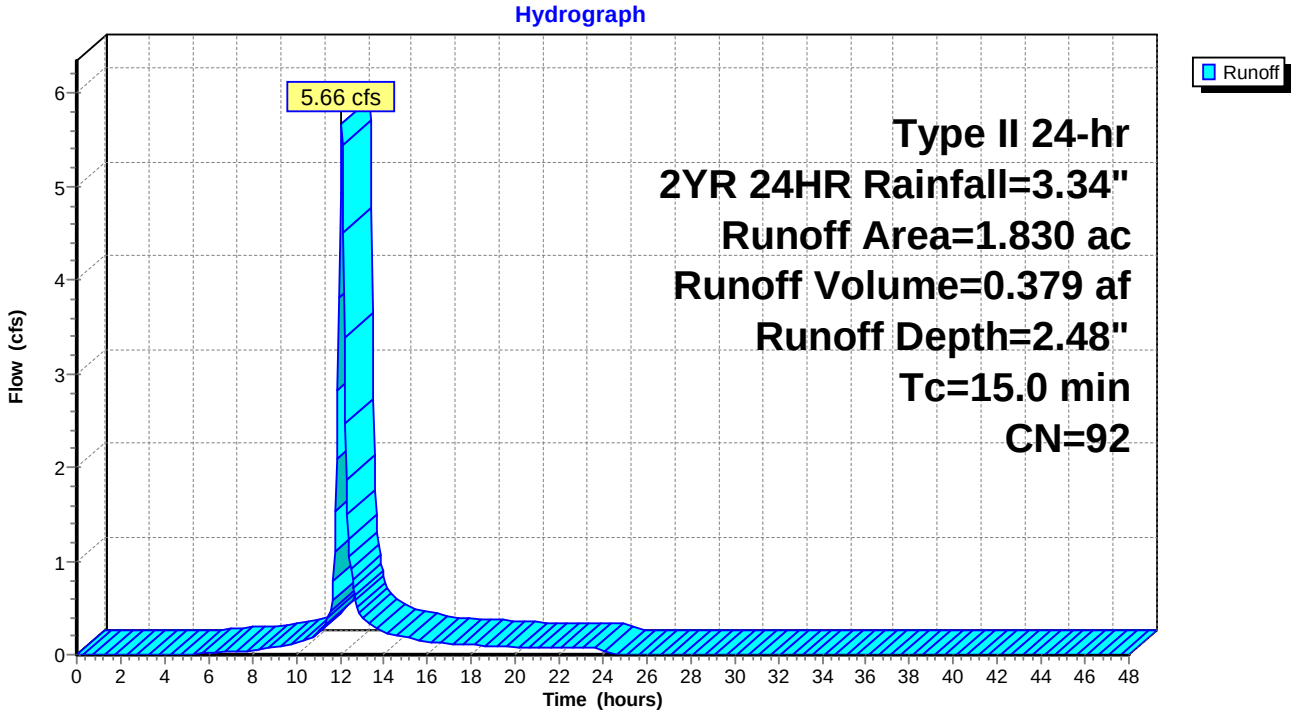
Runoff = 5.66 cfs @ 12.06 hrs, Volume= 0.379 af, Depth= 2.48"
Routed to Pond 12P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR 24HR Rainfall=3.34"

Area (ac)	CN	Description
0.650	80	>75% Grass cover, Good, HSG D
1.180	98	Paved parking, HSG D
1.830	92	Weighted Average
0.650		35.52% Pervious Area
1.180		64.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry,**

Subcatchment 11S: Proposed Detention Pond



Summary for Pond 12P: Proposed Pond

Inflow Area = 1.830 ac, 64.48% Impervious, Inflow Depth = 2.48" for 2YR 24HR event
Inflow = 5.66 cfs @ 12.06 hrs, Volume= 0.379 af
Outflow = 0.17 cfs @ 15.39 hrs, Volume= 0.379 af, Atten= 97%, Lag= 199.4 min
Primary = 0.17 cfs @ 15.39 hrs, Volume= 0.379 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 592.63' @ 15.39 hrs Surf.Area= 0.171 ac Storage= 0.237 af

Plug-Flow detention time= 674.5 min calculated for 0.379 af (100% of inflow)
Center-of-Mass det. time= 674.4 min (1,475.8 - 801.4)

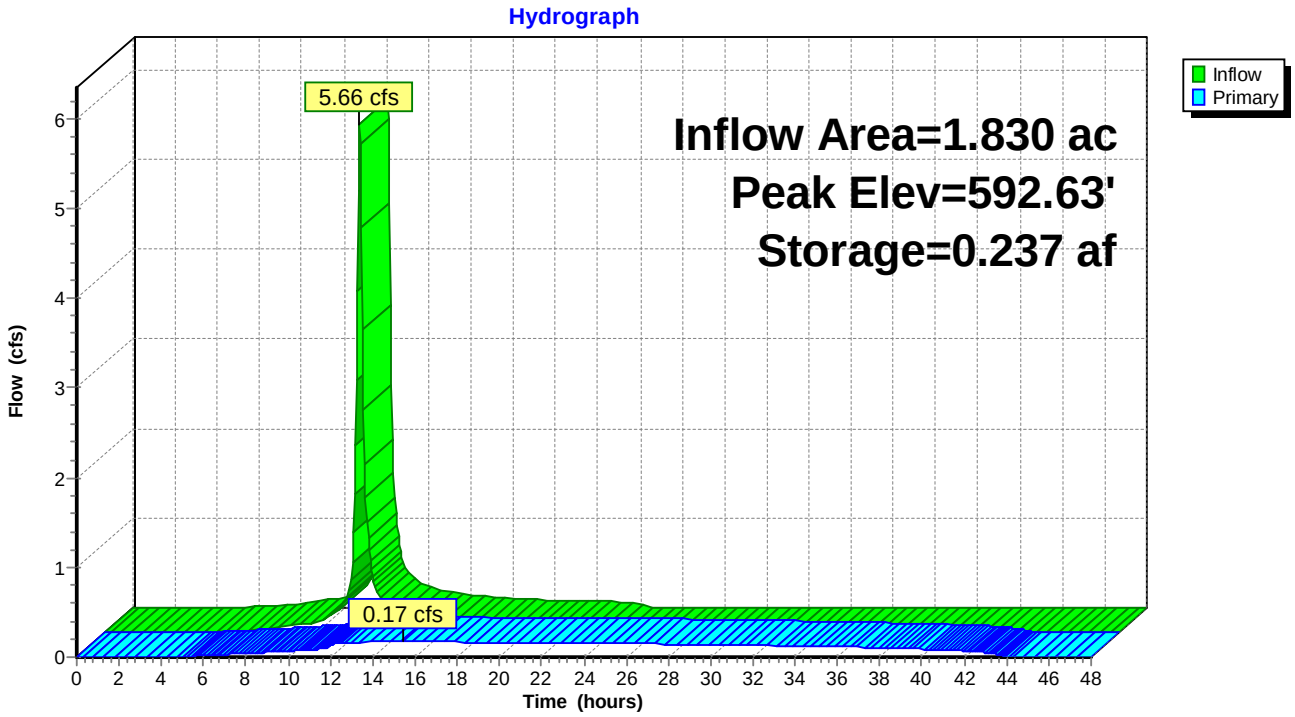
Volume	Invert	Avail.Storage	Storage Description
#1	590.00'	1.142 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
590.00	0.000	0.000	0.000
590.10	0.004	0.000	0.000
590.50	0.032	0.007	0.007
591.00	0.076	0.027	0.034
591.50	0.111	0.047	0.081
592.00	0.133	0.061	0.142
593.00	0.193	0.163	0.305
593.50	0.251	0.111	0.416
593.75	0.287	0.067	0.483
594.75	1.030	0.659	1.142

Device	Routing	Invert	Outlet Devices
#1	Primary	590.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.17 cfs @ 15.39 hrs HW=592.63' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.17 cfs @ 7.68 fps)

Pond 12P: Proposed Pond



Summary for Subcatchment 11S: Proposed Detention Pond

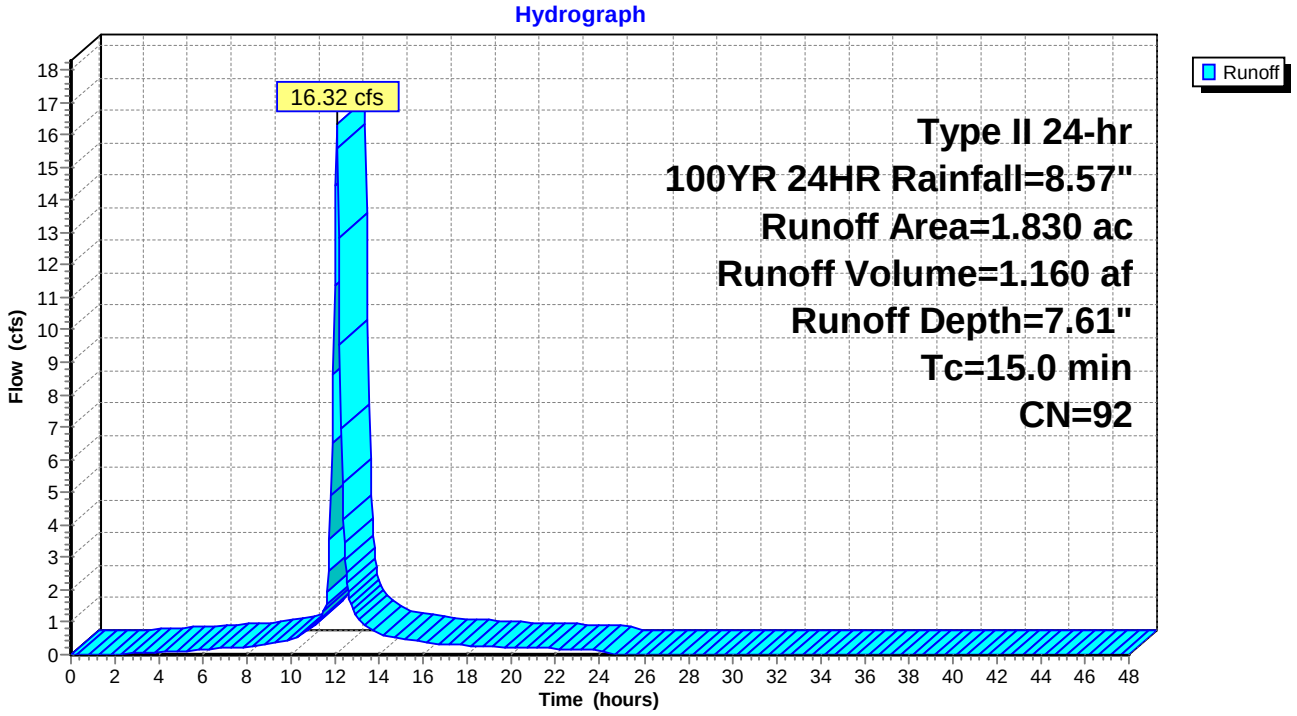
Runoff = 16.32 cfs @ 12.06 hrs, Volume= 1.160 af, Depth= 7.61"
Routed to Pond 12P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100YR 24HR Rainfall=8.57"

Area (ac)	CN	Description
0.650	80	>75% Grass cover, Good, HSG D
1.180	98	Paved parking, HSG D
1.830	92	Weighted Average
0.650		35.52% Pervious Area
1.180		64.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry,**

Subcatchment 11S: Proposed Detention Pond



Summary for Pond 12P: Proposed Pond

Inflow Area = 1.830 ac, 64.48% Impervious, Inflow Depth = 7.61" for 100YR 24HR event
Inflow = 16.32 cfs @ 12.06 hrs, Volume= 1.160 af
Outflow = 0.22 cfs @ 19.81 hrs, Volume= 0.706 af, Atten= 99%, Lag= 465.2 min
Primary = 0.22 cfs @ 19.81 hrs, Volume= 0.706 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 594.47' @ 19.81 hrs Surf.Area= 0.819 ac Storage= 0.880 af

Plug-Flow detention time= 990.9 min calculated for 0.705 af (61% of inflow)
Center-of-Mass det. time= 885.9 min (1,657.9 - 772.0)

Volume	Invert	Avail.Storage	Storage Description
#1	590.00'	1.142 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
590.00	0.000	0.000	0.000
590.10	0.004	0.000	0.000
590.50	0.032	0.007	0.007
591.00	0.076	0.027	0.034
591.50	0.111	0.047	0.081
592.00	0.133	0.061	0.142
593.00	0.193	0.163	0.305
593.50	0.251	0.111	0.416
593.75	0.287	0.067	0.483
594.75	1.030	0.659	1.142

Device	Routing	Invert	Outlet Devices
#1	Primary	590.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.22 cfs @ 19.81 hrs HW=594.47' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.22 cfs @ 10.08 fps)

Pond 12P: Proposed Pond